PRELIMINARY REMARK

The present response respectfully submits claim amendments as well as arguments as to the patentability of the amended claims as outlined during the telephone interview conducted by the Examiner on July 30, 2007 with the representatives of the Applicants. The Applicants thank the Examiner for her time and clear, informative attitude.

REMARKS

Amendments to the claims

The language of claim 7 has been amended to recite: *"A method for producing carbon monoxide-free reformed fuel gas ~~comprising~~ consisting essentially of reacting a fuel gas using nonthermal plasma in at least one nonthermal plasma reactor"*.

The language *"consisting essentially"* is supported by the application as filed. For example, page 16, line 23 to page 17, line 11 of the specification discloses reacting a reformed fuel gas with nonthermal plasma (according to reaction (3) on page 17) to produce directly a carbon monoxide-free gas to be supplied to fuel cells. According to another example, page 19, line 15 to page 20, line 16 of the specification discloses reacting a fuel gas with nonthermal plasma (according to reaction (5) page 19) to produce directly a carbon monoxide-free gas to be supplied to fuel cells.

The above excerpts show in particular that no additional filtering and/or reacting is needed, after reacting the fuel gas using nonthermal plasma, to obtain a carbon-monoxide-free reformed gas, and therefore support reciting that the method of claim 7 consists essentially of reacting a fuel gas using nonthermal plasma for producing carbon monoxide-free reformed fuel gas.

Further, the language "*using nonthermal plasma*" is explicitly recited page 17, lines 27-28 of the specification.

The language of dependent claims 8 and 9 has been amended consistently with the new language of claim 7.

Claim 8 relates to an embodiment as described for example page 16, line 23 to page 17, line 11 of the specification, wherein reacting a fuel gas with nonthermal plasma comprises using nonthermal plasma to convert carbon monoxide from a reformed fuel gas.

Claim 9 relates to an embodiment as described for example page 19, line 15 to page 20, line 16 of the specification, wherein reacting a fuel gas using nonthermal plasma comprises, using nonthermal plasma to reform a fuel gas and to convert carbon monoxide from the reformed fuel gas.

Dependent claim 26 was cancelled without prejudice, and dependent claim 27 was rewritten in the dependency of claim 9 for clarity.

Independent claim 30 was amended to recite "*A method for producing carbon monoxide-free reformed fuel gas comprising producing a gas stream to be supplied to a fuel cell with no further processing by~~reacting a fuel gas in at least one~~using nonthermal plasma ~~reactor~~ to convert carbon monoxide from ~~said~~ a reformed fuel gas in ~~said~~ a nonthermal plasma reactor*".

Support for this amendment is for example found page 19, lines 13-20.

No new matter was added.

Rejection of the claims

Claims 7-11, 26-27 and 30 stand rejected under 35 U.S.C. 102(b) as being anticipated by French patent No. 2,757,499 to Etievant (corresponding to U.S. Patent No. 6,245,309).

The Applicants respectfully disagree with the Examiner.

Independent claim 7

The Applicants note that Etievant recites, in its U.S. claim 1, *"a generator of substantially pure hydrogen, including a reaction chamber into which is injected a primary gas mixture [...]; means for producing in the reaction chamber electrical discharges at a current which is low enough to prevent the formation of electric arcs so as to generate a cold plasma [...] in order to reform the primary gas mixture to produce a secondary gas mixture containing hydrogen, carbon dioxide, carbon monoxide and a residue of the primary gas mixture; and means for removing hydrogen from the secondary gas mixture"*.

By claiming *"means for removing hydrogen from the secondary gas mixture"*, Etievant teaches as essential to have means for separating pure hydrogen from the secondary gas mixture produced by reacting Etievant's primary gas with cold plasma. Etievant details, for example in its U.S. claim 14, that that this is because the secondary gas mixture comprises pollutants such as carbon monoxide that need to be eliminated from the secondary gas mixture prior to obtaining a carbon-monoxide-free gas.

At least in view of the above, Etievant cannot be deemed to suggest a method for producing carbon monoxide-free reformed fuel gas essentially by reacting a gas using nonthermal plasma, and in particular a method for producing carbon monoxide-free reformed fuel gas *"consisting essentially of reacting a fuel gas using nonthermal plasma in at least one nonthermal plasma reactor"* as recited in claim 7 as amended.

Further, since Etievant teaches as necessary to provide means for separating hydrogen from pollutants such as carbon monoxide present in the secondary gas mixture that is produced using the cold plasma, Etievant actually teaches away from producing a carbon monoxide-free gas essentially by reacting a fuel gas using nonthermal plasma, and thus teaches away from claim 7 as amended.

The Applicants respectfully submit that at least in view of the above, claim 7 is patentable over Etievant.

Independent claim 30

The Applicants respectfully submit that the above arguments can also be used to show that Etievant does not disclose, and even teaches away from using directly in a fuel cell a gas stream produced by reacting a fuel gas using nonthermal plasma, and in particular from a method comprising *"producing a gas stream to be supplied to a fuel cell with no further processing by using nonthermal plasma to convert carbon monoxide from a reformed fuel gas in a nonthermal plasma reactor"*, as recited in claim 30.

Dependent claims 8-11 and 26-27

Claim 26 was cancelled without prejudice.

Claims 8-11 and 27 depend directly or indirectly on claim 7. The Applicants respectfully submit that at least in view of their dependency on claim 7, claims 8-11 and 26-27 are patentable over Etievant.

* * *

In view of the above, Applicants submit that the application is now in condition for allowance and respectfully urge the Examiner to pass this case to issue.

The Commissioner is authorized to charge any additional fees that may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Office with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

August 1, 2007
(Date of Transmission)

Joanna Sosa
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8-1-07
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